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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/393,122	09/10/1999	STEPHAN W. GEHRING	FANT-99-008	2263

7590 09/08/2004

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EXAMINER	
SHAH, CHIRAG G	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/393,122	GEHRING ET AL.	
	Examiner	Art Unit	
	Chirag G Shah	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10* is/are allowed.

6)☒ Claim(s) *12,15,18-20 and 23* is/are rejected.

7)☒ Claim(s) *13,14,16,17,21,22,24 and 25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8,12*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 12, 15, 18-20 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabata et al. (U.S. Patent No. 6,424,645), in view of Ball et al. (U.S. Patent No. 4,672,608), hereinafter, Kawabata in view of Ball.

Referring to claims 12 and 20, Kawabata discloses in figures 7 and respective portions of the specification of a product and a method for providing data transfer in a network including a master device (base station) which controls the data transfers and a plurality of slave devices (mobile stations), the method comprising:

receiving a request in the master device from a source device for a data transfer between the source slave device and a target slave device wherein the request includes a bandwidth requirement for the data transfer [as disclosed in figure 1, when data to be transmitted takes place in any of the terminal stations 2, they each transmit to the base station 3 information for requesting assignment of a traffic channel with the number of slots needed for the communication];

reallocating a plurality of time slots in a TDMA frame for transmission between devices by the master device to remove spans of time between consecutive data slots in response to

receiving the request for the data transfer [as disclosed in figures 1 and 7 and column 8, lines 3 to 66, the base station 3 manages the channel resources between it and the terminal stations 2 connected thereto, and establishes channels between then in response to channel establishment request from the terminal stations 2. The channel resources are time-divided, and the channel establishment is carried out at a TDMA frame period consisting of a plurality of time slots]; and

assigning a new time slot for the data transfer based upon the bandwidth request in response to reallocating the plurality of time slots [as disclosed in figure 4 and column 8, lines 3 to lines 63; illustrating state stations of the channel assignment, The base station 3, considering the request information form the entire terminal stations 2 and downward traffic, carries out efficient channel assignment. In the case where assignment of continuous slots improves the efficiency, the slots assigned to the terminal stations 2b and 2 c are channel to slots S2 and S1 respectively, as shown in next super frame of figure 4, so that the consecutive slots S3-S5 are assigned to the terminal station 2a, the bases station 3 notifies the entire terminal stations 2 of the latest assignment information so that it is used form the next super frame].

Kawabata discloses in column 5, lines 49-65 of the base station sending Bch designating a broadcast control channel for sending common information to the mobile station for acquiring frame alignment, but fails to explicitly disclose of transmitting an ALOHA signal in a TDMA frame periodically from the master device to the plurality of slave device. Ball discloses in column 3, lines 32-45, in a traffic mode, the base station transmitter is able to operate on a low duty cycle and send an Aloha invitation message once every five seconds for example and the substation (or mobiles) can send requests for access at randomly selected times (which may be slotted) in a frame and in the event of contention or propagation errors can retransmit request one

or more time in the same frame. Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Kawabata to include the teaching transmitting Aloha signal in a TDMA frame periodically as of Ball in order to determine the mode of operation and determine traffic load requests required by mobile stations to ensure efficient allocation of bandwidth.

Referring to claims 15 and 23, Kawabata discloses wherein the new data slot assignment includes a start time and slot length as disclosed in column 4, lines 50-60, figure 4, claim 8, and column 8, lines 3-38] as claim.

Referring to claim 18, Kawabata discloses a second set of instructions for directing a processing unit in a one of the plurality of slave device to: receive a request from an application for a data transfer, generate a request for a data transfer that includes a bandwidth required for the data transfer, and transmit the request to the master device [see claim 1; transmitting from the terminal station s to the base station assignment request information using a plurality of frames includes in the assignment request period and transmitting from the base station to the terminal station, frame structure information and assignment information over a plurality of frames includes in the assignment information notification period]; and a media readable by the processing unit in one of the plurality of slave devices for storing the second set of instructions [as disclosed in figure 2 and claim 1 and respective portions of the specification that upward signal consists of a preamble, control channel and a traffic channel, and a downward signal consists of a control channel and a traffic channel, these channels are utilized for transmitting communication data and for exchanging control information such as assignment request] as claim.

Referring to claim 19, Kawabata discloses in figure 5 and in column 8, lines 39-63 wherein the request further includes at least one parameter (number of slot) from a group of parameter consisting of size of data to transfer, latency range specification, or optimal bandwidth range as claim.

Allowable Subject Matter

3. Claims 13-14, 16-17, 21-22, 24 and 25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claim 10 allowed.

Response to Arguments

5. Applicant's arguments with respect to claims 12-25 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this final action should be mailed to:

Box AF
Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)305-9051, (for formal communications; please mark "EXPEDITED PROCEDURE)

Or:

(703)305-5403 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs
August 23, 2004

Ajit Patel
Primary Examiner